

Title (en)  
SHUTTLECOCK ARTIFICIAL FEATHER AND BADMINTON SHUTTLECOCK

Title (de)  
KÜNSTLICHE FEDERBALLFEDER UND BADMINTON-FEDERBALL

Title (fr)  
PLUME ARTIFICIELLE POUR VOLANT ET VOLANT DE BADMINTON

Publication  
**EP 3978085 A2 20220406 (EN)**

Application  
**EP 21200409 A 20211001**

Priority  
JP 2020167562 A 20201002

Abstract (en)  
The present invention addresses the problem of providing: a shuttlecock artificial feather (1) including a rachis that is lightweight and that has a high rigidity; and a badminton shuttlecock (20) including the shuttlecock artificial feather. The shuttlecock artificial feather according to the present invention includes: a vane portion (3); and a rachis portion (5) fastened to the vane portion. The rachis portion includes: a core portion region (11) having pores; and an outer layer region (13) coating the core portion region and having a solid structure.

IPC 8 full level  
**A63B 67/187** (2016.01); **A63B 102/04** (2015.01)

CPC (source: CN EP)  
**A63B 67/187** (2016.01 - CN EP); **A63B 67/19** (2016.01 - CN); **A63B 2102/04** (2015.10 - EP); **A63B 2209/00** (2013.01 - EP); **A63B 2209/02** (2013.01 - EP); **A63B 2209/026** (2013.01 - EP)

Citation (applicant)  
• JP 2015073782 A 20150420 - TORAY INDUSTRIES  
• CN 101491730 A 20090729 - WENGUANG ZHANG [CN]

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)  
BA ME

DOCDB simple family (publication)  
**EP 3978085 A2 20220406**; **EP 3978085 A3 20220615**; CN 114377365 A 20220422; JP 2022059762 A 20220414

DOCDB simple family (application)  
**EP 21200409 A 20211001**; CN 202111168013 A 20210930; JP 2020167562 A 20201002